ATTACHMENT 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

RESOLUTION NO. 01-101

A Resolution Amending the Water Quality Control Plan
for the Colorado River Basin
to Establish a Total Maximum Daily Load for Pathogens
for the New River

WHEREAS, the California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter Regional Board), finds that:

1. An updated Water Quality Control Plan for the Colorado River Basin (Basin Plan) was adopted by the Regional Board on November 17, 1993, approved by the State Water Resources Control Board (SWRCB) on February 17, 1994, and approved by the Office of Administrative Law on August 3, 1994.

2. Warm freshwater habitat (WARM), wildlife habitat (WILD), preservation of rare, threatened, and endangered species (RARE), water contact recreation (REC I), non-contact recreation (REC II), and freshwater replenishment (FRSH) are among the beneficial use designations specified in the Basin Plan for the New River.

3. The Basin Plan includes narrative water quality objectives for fecal coliform, E. coli, and enterococci bacteria for the New River to protect the beneficial uses listed in Finding No. 2, above.

4. Water Quality objectives are not being met in the New River primarily because of direct and indirect discharges of untreated, partially treated, and undisinfected wastes from Mexico; and because of direct and indirect discharges of undisinfected wastewater from some domestic wastewater treatment plants in Imperial County.

5. Pursuant to Section 303(d) of the Clean Water Act, the Regional Board, with the concurrence of the State Board, listed the New River as water quality limited because of the pathogenic impairments as indicated by concentrations of fecal and E. coli bacteria. Section 303(d) of the Clean Water Act requires the establishment of the Total Maximum Daily Load (TMDL) of pathogens that can be discharged while still ensuring compliance with water quality standards. Section 303(d) also requires the allocation of this TMDL among sources of pathogens, together with an implementation plan and schedule that will ensure that the TMDL is met and that compliance with water quality standards is achieved.

6. The New River pathogen TMDL Report (hereafter "TMDL Report") and the proposed Basin Plan amendment (hereafter "Attachment 1") to establish the TMDL are hereto made part of this Resolution by reference.

7. The TMDL Report and related Basin Plan amendment attached to this resolution meet the requirements of Section 303(d) of the Clean Water Act. The amendment requires, in part, that wastewater plants in Imperial County provide effluent disinfection to control their pathogenic contribution and asks that the U.S. Government submit a plan with proposed measures to address pollution from Mexico so that water quality standards will be met by 2004.

8. The Regional Board prepared and distributed written reports regarding adoption of the Basin Plan amendment in compliance with applicable state and federal environmental regulations (Title 23, California Code of Regulations, Section 3775 et seq.; and Title 40, Code of Federal Regulations, Parts 25 and 131).

9. The process of basin planning has been certified by the Secretary for Resources as exempt from the requirements of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) to prepare an Environmental Impact Report or Negative Declaration. (Pub. Resources Code, 21080.5; Cal. Code Regs., tit. 14, 15251, subd. (g).) The TMDL Report-Basin Plan amendment package includes an Environmental Checklist, an assessment of the environmental impacts of the Basin Plan amendment, and a discussion of alternatives, among other analyses. The amended Basin Plan, Environmental Checklist, TMDL Report, and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration.

10. The Regional Board has considered federal and state antidegradation policies and other relevant water quality control policies and finds the Basin Plan amendment consistent with those policies.

11. Since January 1998, Regional Board staff has engaged interested parties in stakeholder involvement through regular meetings with the New River/Mexicali Sanitation Project Binational Technical Advisory Committee, special discussions with the International Boundary and Water Commission, discussions with City of Calexico personnel, and other outreach efforts throughout the Region.

12. Consistent with Title 23, California Code of Regulations, Sections 3778 through 3780, the Regional Board consulted about the proposed action with stakeholders in the Region and with other potentially affected parties, considered and addressed comments on the matter, and considered and incorporated feasible mitigation measures to avoid significant impacts on the environment.

13. On _____ 2001, the Regional Board held a Public Hearing to consider the TMDL Report and the Basin Plan amendment. Notice of the Public Hearing was given to all

interested persons and published in accordance with Water Code Section 13244 and Title 40, Code of Federal Regulations, Part 25.

14. The Basin Plan amendment must be submitted for review and approval by the SWRCB, the Office of Administrative Law (OAL), and the U.S. Environmental Protection Agency. Once approved by the SWRCB, the amendment is submitted to OAL. A Notice of Decision will be filed after the SWRCB and OAL have acted on this matter. The SWRCB will forward the approved amendment to the U.S. Environmental Protection Agency for review and approval.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board adopts the amendment to the Water Quality Control Plan for the Colorado River Basin as set forth in Attachment 1.

2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the SWRCB in accordance with the requirement of Section 13245 of the California Water Code.

3. The Regional Board requests that the SWRCB approve the Basin Plan amendment in accordance with Sections 13245 and 13246 of the California Water Code and forward it to the Office of Administrative Law for approval.

I, Phil Gruenberg, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on _____.

_____

Phil Gruenberg
Executive Officer

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An Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the New River Pathogen Total Maximum Daily Load

AMENDMENT:

(Proposed additions are denoted by underlined text, proposed deletions are denoted by ~~strikethrough~~ text)

Page 3-3, edit the first paragraph under "I. BACTERIA" as follows:

In waters designated for water contact recreation (REC I) or noncontact water recreation (REC II), the following bacterial objectives apply~~:~~. Although the objectives are expressed as fecal coliforms, E. coli, and enterococci bacteria, they address pathogenic microorganisms in general[1] (e.g., bacteria, viruses, and fungi).

Page 3-3, delete the following paragraphs under "I. BACTERIA":

~~For drainageways in Imperial Valley receiving little or no public use, the Regional Board may waive the application of these objectives toward nonpoint source discharges and existing point source discharges of at least secondary treated sewage effluent. Waivers may only be issued for a maximum of three years and may be renewed for subsequent three-year periods. Consideration will be given to the following prior to issuance or reissuance of waivers:~~

- ~~What is the threat to in-stream aquatic life from the discharge of effluents that are chlorinated and dechlorinated;~~

- ~~How much would public health protection be enhanced by chlorination and dechlorination of effluents; and~~

- ~~What are the economic hardships that result from chlorination and dechlorination of effluents.~~

~~The Regional Board will consult with the California Department of Health Services in assessing public health risks. Waivers will be sent to the State Water Resources Control Board and the U.S. Environmental Protection Agency for review.~~

Page 3-5, edit the first and second paragraphs in Section III.B of Chapter 3 so it reads as follows:

Minute No. 264 of the Mexican-American Water Treaty titled "Recommendations for Solution of the New River Border Sanitation Problem at Calexico, California - Mexicali, Baja California Norte" was approved by the Governments of the United States and Mexico effective on December 4, 1980. Minute No. 264 specifies qualitative and quantitative standards for the New River at the International Boundary and upstream of the International Boundary in Mexico.

The quantitative standards of Minute No. 264 are contained in Table 3-1. Following are the qualitative standards of Minute No. 264 for the New River at the ~~International Boundary~~ locations specified below (interim solution).

Page 3-7, following the footnotes for Table 3-1, add the following paragraphs:

[1] Fecal coliforms and E. coli bacteria are being used as the indicator microorganisms in the Region until better and similarly practical tests become readily available in the Region to more specifically target pathogens.

Monitoring data collected by the Regional Board and the United States section of the International Boundary and Water Commission indicate that with the exception of pH, all quantitative and qualitative standards of Minute No. 264 have been violated since they were established. Moreover, with the exception of pH and DO, the standards do not protect or achieve the New River water quality given that: (1) they are inconsistent with the General Surface Water Objectives of this Basin Plan (p. 3-1), and (2) they are actually applicable to the New River in Mexico, not at the International Boundary. It is therefore appropriate for the Regional Board, as the agency responsible for protecting the quality of the waters in this region of the United States, to develop and enforce water quality objectives for the New River that are consistent with State and USEPA criteria for surface waters and that protect the waters of the region as follows:

1. Bacteria Water Quality Objectives
The bacterial standards identified in the General Surface Water Objectives section of this Basin Plan (p. 3-3) are applicable to the entire stretch of the New River in the United States.

The Pathogen Total Maximum Daily Load (TMDL) and associated implementation actions are described in Chapter 4, Section V(A). Compliance Monitoring activities for the TMDL are described in Chapter 6, Section II(B).

Page 4-8, edit Section IV.A as follows:

A. NEW RIVER POLLUTION BY MEXICO

The New River rises in Mexico, flows northward across the International Boundary and through California's Imperial Valley before ultimately discharging into the Salton Sea. The River conveys agricultural drainage from the Imperial and Mexicali Valleys to the Salton Sea. The River also conveys community and industrial wastewaters. In Imperial Valley, waste discharge requirements are prescribed and enforced by this Regional Board for discharges of treated community and industrial wastewater. However, Mexico discharges raw and inadequately treated sewage, toxic industrial wastes, garbage and other solid wastes, animal wastes, and occasionally geothermal wastewaters from the Mexicali area into the United States via the New River. These discharges of raw and inadequately treated sewage and industrial wastes have continued for over 40 years. The resulting pollution of the New River at the International Boundary is such that sewage solids continue to be plainly visible in the River at the International Boundary. Also, toxic chemicals have been detected in the River water. ~~Although Mexico has made some efforts to upgrade Mexicali's wastewater collection and treatment system, these efforts have not been sufficient to correct all pollution in the River. Additionally, poor maintenance of the collection system has resulted in frequent breakdowns with the resultant discharge of raw sewage to the River. As Mexicali's industry and its population continue to grow, these problems are expected to worsen unless corrective measures are undertaken.~~ Responsibility within the United States for dealing with Mexico on the New River pollution problem is with the ~~USEPA and with the~~ United States Section of the International Boundary and Water Commission (IBWC) and the USEPA~~, a joint United States/Mexico federal agency with responsibility for dealing with border water and sanitation problems between the two nations~~.

The IBWC is a US-Mexican federal agency with roots in the "Treaty of Guadalupe Hidalgo of Peace, Limits and Settlement," which was signed by both Countries in February 1848. IBWC was established as the "International Boundary Commission" (IBC) in 1889 to deal with boundary issues. In 1944, the US and Mexico signed the Treaty entitled "Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" (a.k.a. the "Mexican-American Water Treaty"), which was

ratified by the US Congress in 1945. The Mexican-American Water Treaty changed the name of IBC to IBWC, and expanded their jurisdiction and responsibilities. The IBWC's jurisdiction extends along the boundary and into both countries where international projects have been constructed. The agencies responsibilities include the implementation of boundary and water treaties and mediating disputes that arise in their application. The treaty specifically charged the IBWC with solving border sanitation and water quality problems.

In August 1983, the Presidents of Mexico and the United States signed the La Paz Agreement to protect and improve the environment in the border area. The La Paz Agreement designates the USEPA as the US coordinator for pursuing practical, legal, institutional and technical measures necessary to protect the environment. The agreement originally named Mexican Secretaría de Desarrollo Urbano y Ecologia (SEDUE) as the coordinator for Mexico. In 1992, Mexico transferred responsibility for border problems to the Secretaría de Desarrollo Social (SEDESOL). Currently, the Comision Nacional del Agua (CNA) has primary responsibility for water quality problems along the border for Mexico.

For over 30 years, this Regional Board has been encouraging the United States Commissioner on the IBWC to obtain corrections of this gross problem. Since 1975, the Regional Board has monitored water pollution in the New River in an effort to identify the pollutants coming from Mexico. This information has been forwarded to the United States Commissioner and to others to aid and encourage Mexico in implementing corrective actions.

For sewage service purposes, the Mexicali metropolitan area is divided into the Mexicali I and Mexicali II areas. Mexicali I includes most of the old, well established neighborhoods to the west, the existing municipal sewage collection and treatment system,(excluding the Gonzalez-Ortega lagoon system) and the Zaragoza lagoons. The Mexicali II service area includes the new residential and industrial development to the east of the Gonzalez-Ortega lagoons, and the proposed new 20-mgd WWTF. The City of Mexicali is undergoing unprecedented growth. In the year 2000, the "Instituto Nacional de Estadisticas Geografia e Informatica" (INEGI) estimated the population within the Municipality of Mexicali to be 765,000 people, and projected a 2.6% annual growth rate. Based on this, the production of domestic and industrial wastewater is projected to increase to 58-67 mgd over the next 20 years. However, Mexicali lacks an adequate sewage collection, conveyance, and treatment system for current and projected flows. It is currently served by two stabilization lagoon systems, which lack disinfection facilities. The systems have a combined design capacity of about 20-25 mgd, however sewage flows calculated by CH2M Hill in 1997 ranged from 35 to 40 mgd.

The Regional Board staff has conducted investigations of the New River watershed in Mexico to determine the type(s) and extent of waste discharges into the New River and its tributaries so that possible corrective measures could be considered. The investigations have been successful in identifying the problems that must be addressed to obtain adequate corrections. These problems include the following:

- Breakdowns in Mexicali's sewer system from either occasional pump failure or line incapacity/collapse resulting in the discharge of raw sewage to the River;

- Discharge of untreated industrial wastes to the River including highly toxic chemical wastes, many of which are on USEPA's list of 129 priority pollutants and some of which are carcinogens;

- Inadequate treatment of sewage and industrial wastes by the Mexicali lagoon systems~~, whose sewage treatment plant consists of nothing more than raw sewage lagoons~~;

- Discharge of solid waste in or near the River and its tributaries;

- Discharge of raw sewage to the River from adjacent unsewered residences;

- Occasional ~~Discharge~~discharges of wastes to the River by septic tank pumpers;

- Periodic direct discharges of untreated wastes from a slaughterhouse, dairy, and hog farms;

- Discharges from residential hog and cattle pens located adjacent to the River and its tributaries; and

- ~~Periodic~~Occasional discharges of geothermal wastes to the River.

Described below is a summary of actions taken by various agencies (Federal and State) to correct the international pollution problems in the New River watershed.

In August 1980, Minute No. 264 to the Mexican-American Water Treaty was signed which specified time schedules for completing works that were to result in a full cleanup of the river. In addition, minimal water quality standards were specified for New River water quality at the International Boundary. Unfortunately, the specified schedules and standards of Minute No. 264 were not met and the need for further improvements to Mexicali's sewage work became evident.

~~In August 1983, a United States/Mexican agreement for protection and improvement of the environment in the border area was signed by the Presidents of Mexico and the United States. Under this agreement, primary responsibility for border environmental problems, including the New River pollution problem, was transferred from IBWC to the United States Environmental Protection Agency (EPA) for the United States, and to the Mexican Secretaría de Desarrollo Urbano y Ecologia (SDUE) for Mexico. In 1992, Mexico transferred responsibility for border problems to the Secretaría de Desarrollo Social (SEDESOL).~~

In 1987, Montgomery Engineers Inc., was contracted by the Regional Board to investigate pollution abatement measures within the United States for the New and Alamo Rivers. A final report entitled New River Pollution Abatement Report - Recommended Projects, December 1987, recommended that a screening device and chlorination/aeration facility be constructed near the International Boundary. A proposed appropriation of $1,525,000 for follow-up work including actual engineering designs was rejected by the Governor of California on July 8, 1988. The Administration's position was that pollution emanating from Mexico is a complex international problem which demands an international solution and that the Federal Government must address this issue rather than the State.

On April 15, 1987, Minute No. 274 to the Mexican-American Water Treaty was approved by the governments of Mexico and the United States. The Minute provided for a $1,200,000 United States/Mexico jointly funded project to construct certain works in Mexico to reduce pollution in the New River. The project included construction of a major new pumping plant and sewer line, placement of standby pumps and rehabilitation of existing pumps at Pumping Plants No. 1 and 2, and purchase of sewer line cleaning equipment. Although efforts were made by the Government of Mexico to rehabilitate and expand the sewage system in Mexicali, the accelerated urban growth

surpassed the capacity of these works and discharges of untreated industrial and domestic wastewaters into the New River continued.

~~At present, the following actions have been initiated to work towards a long-term solution to the international pollution problems.~~ Minute No. 288 was signed by the Commissioners in October of 1992 titled "Conceptual Plan for the Long Term Solution to the Border Sanitation Problem of the New River at Calexico, CA - Mexicali, Baja California". It was the result of a recommendation by the United States and Mexico at the IXth US/Mexico Binational Commission that priority attention should be given to the cleanup of the New River. ~~This Minute sets out a conceptual plan for construction and rehabilitation of facilities to collect, treat and dispose of Mexicali wastewaters. Two separate sanitation systems, Mexicali I and Mexicali II, would be created along with a general program of actions to eliminate the discharges into the New River of untreated and partially treated domestic and industrial wastewaters. Within approximately 6 months of the approval of this Minute, plans are to be developed for the implementation of the conceptual plan, with subsequent adoption of a new Minute recommending the specific projects and schedules of works supporting the conceptual plan, along with financing sources.~~ Minute No. 288 established short and long-term solutions for the sanitation of the New River at the International Boundary. These short-term measures, known as "Quick Fixes," were designed to be compatible with the long-term solution, and were funded through a cost sharing agreement between both countries. The U.S. and Mexico funded 55% and 45% respectively, of the total $7.5 million required for the Quick Fixes. The Binational Technical Advisory Committee (BTAC) implemented the quick fix and is comprised of representatives from IBWC, Mexican Section(CILA), State Public Services Commission of Mexicali (CESPM) , National Water Commission (CAN) (, Secretary of Human Settlements and Public Works (SAHOPE) , the Municipality of Mexicali for Mexico, the United States IBWC Section, US EPA, California State Water Resources Control Board, Regional Board, Imperial County, and the Imperial Irrigation District. The BTAC improved communication and technology transfer between the two countries. The Quick Fixes are summarized below:

- Improvements to the sewage collection system, either by lining or replacing existing sewer pipes and acquiring modern sewer line cleaning equipment;

- Rehabilitation and upgrading of pumping facilities that lift and deliver wastewater to treatment facilities; and

- Improvements to the existing lagoons at the Ignacio Zaragoza (Mexicali I) and Gonzalez-Ortega wastewater treatment facilities in Mexicali to increase their reliability and capacity.

As of May 2000, nearly 100% of the Quick Fixes were completed and operating successfully

The long-term strategy consists of a series of sewage infrastructure projects for Mexicali I and Mexicali II service areas to address New River pollution. The Mexicali I projects consist of the replacement/rehabilitation of about 44,000 feet of sewage pipes, rehabilitation of sewage pump stations, and expansion of the Mexicali I wastewater treatment plant to 30 mgd. The Mexicali II projects entail the construction of a new 20-mgd wastewater treatment plant (a.k.a. Mexicali II WWTP), the sewage Pumping Plant No. 4 for the new WWTP, installation of telemetry equipment for the WWTP and pumping plants, construction of 31,170 feet of discharge forcemain[2] for

[2] CNA is responsible for this project. As of December 1997, a CNA contractor had already installed approximately 1.5 miles of the force main, a 54-inch steel pipe. However, as of January 1998, the project has been on hold reportedly due to problems between CNA and its contractor.

Pumping Plant No. 4, construction/rehabilitation of about 96,000 feet of sewer lines, and rehabilitation of two sewage lift stations. The proposed projects have an estimated cost of $50 million dollars. The USEPA will fund 55% and the Mexican government the remaining 45% of the total cost. The projects received conditional certification by the Border Environment Cooperation Commission on December 5, 1997, and final certification as of January 7, 1998. . In November 1999, the NADBank developed and submitted a financing plan for the projects to USEPA and the Mexican Government for approval. The plan was approved by both entities and includes Federal, State, and local funds to pay for project costs. Construction of the projects is underway, and should improve the overall quality of the New River, when properly operated and maintained. Completion of the new WWTF is expected by mid-2002. However, the existing lagoon systems and the proposed 20-mgd facility do not include disinfection .

The Regional Board will continue to work with State and Federal authorities in an effort to bring about a solution to this longstanding problem. However, the cooperation of Mexico is crucial in solving this problem. The Regional Board presently supports correction of the problem in Mexico as the most viable solution. The successful implementation of Minutes No. 264 and 288 to the Mexican American Water Treaty would represent an important step in progressing toward this goal.

~~With the cooperation of the IBWC, the sources of pollution to the New River in Mexico have been substantially identified. This identification will facilitate determination of the specific corrective works needed in Mexicali to resolve the pollution problem. Funding of these corrective works will be the next major hurdle~~.

Water quality sampling and analyses of the New River at the International Boundary by the Regional Board will continue as funding permits. However, the conditions and characteristics of the river at the International Boundary are a federal responsibility. Since the data is forwarded to all the agencies in Mexico and the United States that share responsibility for corrective action, it serves as a constant reminder that there is concern to keep the river clean, and that pressure will continue to be administered by the Regional Board. Monitoring results will be utilized as follows:

- ~~Appraising~~ Informing the United States Environmental Protection Agency and other appropriate agencies of pollution problems in the New River at the International Boundary requiring attention;

- Gauging the effectiveness of cleanup measures in Mexico;

- Evaluating Mexico's compliance with the standards set forth in Minute No. 264;

- Formulating plans for construction and operation of facilities needed to assure permanent correction of this New River pollution problem;

- Providing information on the appropriateness of New River water for specific beneficial uses;

- Alerting the State and local health authorities of health hazards associated with New River water; and

- Identifying new pollutants

- Determining compliance with the waste load and load allocation.

Page 4-13, at the top of the page, replace Roman numeral "V" with Roman numeral "VI" and add the following new Section V:

V. ACTIONS FOR TOTAL MAXIMUM DAILY LOADS

A. NEW RIVER PATHOGEN TOTAL MAXIMUM DAILY LOAD

1. Summary

The following table summarizes the key elements of this TMDL, now a part of State Regulation as part of this Water Quality Control Plan:

Table 4-1: New River Pathogen TMDL Elements

ELEMENT	DESCRIPTION
Problem Statement (Impaired water quality standard)	The New River headwaters start about 12-16 miles south of Calexico in the Mexicali Valley, Mexico. Bacteria, which are pathogen-indicator organisms, impair the entire segment of the New River in the United States. Pollution is severest at the International Boundary due to discharges of wastes from Mexico. The bacterial concentrations exceed the water quality objectives established to protect mainly the water contact and non-contact water recreational beneficial uses of the New River.
Numeric Target	The following are the in-stream numeric water quality targets for this TMDL: **Indicator Parameters** — **30-day Geometric Mean[a]** — **Maximum** Fecal Coliforms — 200 MPN[b]/100 ml — c E. Coli — 126 MPN/100 ml — 400 MPN/100 ml Enterococci — 33 MPN/100 ml — 100 MPN/100 ml a. Based on a minimum of no less than 5 samples equally spaced over a 30-day period. b. Most probable number. c. No more than 10% of total samples during any 30-day period shall exceed 400 MPN/100 ml.
Source Analysis	The main sources of pathogens as indicated by fecal coliforms and E. coli bacteria in the New River are discharges of municipal wastes from the Mexicali Valley, Mexico and undisinfected but treated wastewater discharges from five domestic wastewater treatment plants in the Imperial Valley. Natural sources of pathogens appear to play a relatively insignificant role, but their actual contribution, and contributions from other nonpoint sources of pollution in general require proper characterization.

<table>
<tr><th>ELEMENT</th><th>DESCRIPTION</th></tr>
<tr><td>Allocations and Margin of Safety</td><td>
Discharges from point sources and nonpoint sources of pollution shall not exceed the following waste load allocations (WLAs) and load allocations (LAs), respectively:
<table>
<tr><th></th><th>WLAs and LAs</th><th></th></tr>
<tr><th>Indicator Parameters</th><th>30-Day Geometric Mean[a]</th><th>Maximum</th></tr>
<tr><td>Fecal Coliforms</td><td>200 MPN[b]/100ml</td><td>[c]</td></tr>
<tr><td>E. coli</td><td>126 MPN/100 ml</td><td>400 MPN/100 ml</td></tr>
<tr><td>Enterococci</td><td>33 MPN/100 ml</td><td>100 MPN/100 ml</td></tr>
</table>
a. Based on a minimum of no less than 5 samples equally spaced over a 30-day period.
b. Most probable number.
c. No more than 10% of total samples during any 30-day period shall exceed 400 MPN/100 ml.

The allocations are applicable throughout the entire stretch of the New River in the U.S. The numeric target concentrations are based on extensive epidemiological studies conducted by the USEPA and others. The studies are based on risk analyses, which implicitly contain a margin of safety. An additional implicit margin of safety is included in this TMDL, given that dilution from agricultural return flows and industrial discharges were not factored into the selection of the target. Therefore, the concentrations are considered to contain an adequate margin of safety.
</td></tr>
<tr><td>Linkage and Loading Capacity</td><td>Because most of the pathogenic pollution comes from the Mexicali Valley in Mexico, and domestic WWTPs in Imperial Valley, it is believed that direct and indirect controls on these sources should attain bacterial WQOs and address the impairment they are causing. While the temporal variability of the river's bacterial concentrations is currently unknown and needs investigation pursuant to this TMDL, spatial data obtained during recent sampling events are promising with regards to the river's ability to assimilate fecal bacteria. As the river travels for about 60 miles from the International Boundary to its terminus with the Salton Sea, fecal coliforms and E. coli concentrations seemingly decrease significantly from the millions at the International Boundary to the low one thousands at its terminus with the Sea.</td></tr>
</table>

2. Implementation Actions for Attainment of TMDL

The pathogen load allocations, waste load allocations, and water quality objectives shall be applicable to the New River for the protection of the REC-I and REC-II beneficial uses and shall be achieved by June 2004. To this end, the following actions shall be implemented.

2.1 Wastewater Treatment Plants

All point source dischargers discharging, potentially discharging, or proposing to discharge waste with bacteria into the New River and/or surface waters tributary to the New River, at concentrations that violate or threaten violation of the waste load allocation (WLAs), shall provide adequate disinfection to meet the WLAs specified in Table 4-1, above.

Currently, there are five (5) NPDES permitted facilities discharging undisinfected municipal wastewater into the New River: the City of Brawley WWTP, Seeley County Water District (SCWD) WWTP; Date Gardens Mobile Home Park (DGMHP) WWTP; City of Westmorland WWTP, and McCabe Union School District (MCUSD) WWTP. Both the City of Westmorland and City of Brawley have been issued Time Schedule Orders (TSOs) requiring them to upgrade their WWTPs by January 2002 and March 2002, respectively. Both of these entities are currently securing financing from the North America Development Bank to upgrade their respective plants. The NPDES permit for the City of Brawley already prescribes effluent disinfection limits consistent with this TMDL. However, neither the TSO nor the NPDES permits for the City of Westmorland contains requirements for disinfection.

It is essential that the referenced facilities that are not disinfecting provide adequate effluent disinfection at the earliest possible date. Towards this end, the Executive Officer shall direct staff to draft revised NPDES permits for these facilities incorporating the WLAs prescribed in Table 4-1 and monitoring requirements for the WLAs. Draft revised permits shall be ready for Regional Board consideration in accordance with the following schedule:

Facility Name	NPDES Permit No.	Expiration Date	Revision Date
City of Westmorland WWTP	CA0105007	1/28/03	9/15/01
Seeley County Water District WWTP	CA0105023	6/25/02	9/15/01
Date Gardens Mobile Home Park WWTP	CAO104841	9/24/02	9/15/01
McCabe Union High School District WWTP	CA0104281	11/29/00	9/15/01

Additionally, SCWD, DGMHP, and MCUSD shall each:

a. By (3 months following State Board approval of this Basin Plan amendment) and pursuant to Section 13267 of the California Water Code, submit a technical report in the form of plans, specifications, and proposed measures to be taken to secure funds to comply with their WLAs by no later than (32 months following State Board approval of this Basin Plan amendment).

b. Submit quarterly reports to the Executive Officer describing their progress towards meeting their WLAs. Quarterly reports shall be due on the 15th day of the month following the reporting calendar quarter.

2.2 United States Government

Neither the existing lagoon systems nor the proposed wastewater treatment facilities for the Mexicali metropolitan area include disinfection. Also, there are a significant number of unregulated point and nonpoint sources of bacteria which discharge directly into the New River watershed in

Mexicali, and an unknown number of raw sewage bypasses, which are not addressed by the certified projects. Therefore, the projects by themselves will not result in attainment of the bacterial load allocations downstream of the International Boundary. Consequently, it is necessary for the U.S. Government to pursue additional steps to ensure this TMDL complies with the requirements of Section 303(d) of the Clean Water Act and ensure discharges of wastes from Mexico will not cause or contribute to a violation of this TMDL. Therefore, pursuant to Section 13225 of the California Water Code, the U.S. Section of the International Boundary and Water Commission and USEPA shall:

a. **By (3 months following State Board approval of this Basin Plan amendment)**, submit a technical report to the Regional Board with proposed measures (e.g., plans and specifications for disinfection facilities) to ensure that discharges of wastes from Mexico do not cause or contribute to a violation of this TMDL. The report shall specify the parties responsible for implementation of the measures and include a time schedule for implementation and completion of the measures by June 2003.

b. **By (9 months following State Board approval of this Basin Plan amendment)**, submit a report identifying financial options for implementation of the measures discussed in Task No. "a," above.

c. Submit monthly progress reports to the Regional Board regarding progress towards completion of the measures. Monthly reports shall be due by the 15th day of the month.

Page 6-6, add the following new section before item "E. TOXIC SUBSTANCES MOINITORING":

2. New River Pathogen TMDL

2.1 Compliance Assurance and Enforcement
The Executive Officer shall use, as the circumstances of the case may warrant, any and any combination of the following actions to ensure that the severe threat that current bacterial concentration in the New River pose to public health is promptly and effectively corrected:

- Implement and enforce Section 13267 of the California Water Code to ensure that all responsible parties submit, in a prompt and complete manner, the Engineering Wastewater Management Plan required by Order No. 01-800.
- Either issue or prepare for Regional Board consideration of adoption an enforcement order pursuant to Section 13304 of the California Water Code against any responsible party who violates Regional Board waste discharge requirements.
- Prepare for Regional Board consideration of adoption, an enforcement order pursuant to Section 13301 of the California Water Code against those who violate Board waste discharge requirements and the Pathogen TMDL.
- Issue an Administrative Civil Liability Complaint as provided for by the California Water Code against any responsible party who fails to comply with Board orders, prohibitions, and requests.
- Prepare for Regional Board consideration of adoption a referral of recalcitrant violators of Board orders and prohibitions to the District Attorney or Attorney General for criminal or civil prosecution, respectively.
- Prepare for Regional Board consideration of adoption an enforcement order pursuant to Section 13304 against the appropriate responsible parties if measures to prevent wastes

from Mexico from causing or contributing to violations of the Pathogen TMDL are not implemented in timely manner.

2.2 Water Quality Monitoring

Monitoring activities are contingent upon adequate programmatic funding. Monitoring activities for the New River Pathogen TMDL will be conducted pursuant to a Regional Board Quality Assurance Project Plan for the New River (QAPP-NR). The QAPP-NR shall be developed by Regional Board staff and be ready for implementation within 180 days following State Board approval of this amendment. The objectives of the monitoring program shall include collection of water quality data for:

- assessment of water quality standards attainment,
- verification of pollution source allocations,
- calibration or modification of selected models (if any),
- evaluation of point and nonpoint source control implementation and effectiveness,
- evaluation of in-stream water quality,
- evaluation of temporal and spatial trends in water quality, and
- modification of the TMDL as necessary.

The monitoring program shall include a sufficient number of sampling locations and sampling points per location along the New River and major drain tributaries to the river. Monthly grab samples from the above-mentioned surface waters shall be collected and analyzed for the following parameters:

- Flow (to be obtained from IID or USGS)
- Dissolved Oxygen
- pH
- Temperature
- Fecal coliform organisms
- E. Coli
- Fecal streptococci
- Enterococci

Activities implemented by dischargers and responsible parties and surveillance conducted for the New River Pathogen TMDL will tracked pursuant a Regional Board implementation tracking plan (ITP). Regional Board staff will develop the ITP within 180 days following State Board approval of this amendment. The objectives of Regional Board surveillance and implementation tracking are:

- Assess/track/account for practices already in place;
- Measure the attainment of Milestones;
- Determine compliance with NPDES permits, WLAs, and LAs; and
- Report progress toward implementation of NPS water quality control, in accordance with the SWRCB NPS Program Plan (PROSIP).

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

Amendment to the
California Regional Water Quality Control Plan for the Colorado River Basin Region (Basin Plan)
to incorporate the
New River Pathogen Total Maximum Daily Load

The California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter referred to as the Regional Board) is the Lead Agency for evaluating the environmental impacts of the proposed amendment to the *Water Quality Control Plan for the Colorado River Basin Region* (*Basin Plan*), to incorporate a New River Pathogen Total Maximum Daily Load. The Secretary of Resources has certified the basin planning process as exempt from certain requirements under the California Environmental Quality Act (CEQA), including preparation of an initial study, a negative declaration and environmental impact report [Title 14, California Code of Regulations (CCR), Section 15251(g)]. As this proposed amendment to the *Basin Plan* is part of the basin planning process, the amendment is considered 'functionally equivalent' to an initial study, a negative declaration and an environmental impact report. Included in the 'functionally equivalent' amendment are: New River Pathogen Total Maximum Daily Load; Draft Resolution; Basin Plan Amendment; CEQA Checklist; and Economic Analysis of the New River Pathogen TMDL.

Any regulatory program of the Regional Board certified as functionally equivalent, however, must satisfy the documentation requirements of Title 23, California Code of Regulations, Section 3777(a), which requires an Environmental Checklist with a description of the proposed activity, and a determination with respect to significant environmental impacts. This information is presented below.

Project Title:
Amendment to the California Regional Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) to establish the New River Pathogen Total Maximum Daily Load

Lead agency name and address:
California Regional Water Quality Control Board, Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Contact person and phone number: Joan Stormo, Basin Planning Unit Chief (760) 776-8982

Project location: Colorado River Basin Region (southeastern California), Imperial County

Project sponsor's name and address: (see lead agency)

General plan designation: Not Applicable

Zoning: Not Applicable

Description of project:
The Water Quality Control Plan for the Colorado River Basin Region (also known as Basin Plan) designates beneficial uses of waterbodies, establishes water quality objectives for the protection of these beneficial uses, and outlines a plan of implementation for maintaining and enhancing water quality. The existing Basin Plan includes numeric water quality objectives that apply to bacteria. The objectives are being violated and the beneficial uses are being impaired because of discharges of raw sewage, improperly treated sewage, and other wastes from the Mexicali metropolitan area in Mexico. They are also being violated because of discharges of treated, but undisinfected wastewater from some treatment plants in Imperial County. The proposed Basin Plan amendment will establish the New River Pathogen Total Maximum Daily Load (TMDL) and an Implementation Plan to address the impairments of the river. The Implementation Plan essentially requires that: (1) wastewater treatment facilities discharging undisinfected wastewater into the river and/or its tributaries provide effluent disinfection; and (2) the U.S. Government take appropriate measures for the New River at the International Boundary in accordance with a time schedule to address the impairment.

Surrounding land uses and setting:
The Basin Plan is applicable to the Colorado River Basin Region of California, as set forth in the California Water Code, Division 7, Section 13200(i). The region is located in southeastern California.

Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement.) None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

☐ Aesthetics	☐ Agriculture Resources	☑ Air Quality
☑ Biological Resources	☐ Cultural Resources	☑ Geology / Soils
☑ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☑ Noise	☐ Population
☐ Public Services	☐ Recreation	☐ Transportation / Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

I. EVALUATION OF ENVIRONMENTAL IMPACTS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
1. AESTHETICS – Would the project:				
a) Have any substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑
2. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or Williamson Act?	☐	☐	☐	☑
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☑
3. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon the make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☑
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑
5. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑
6. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss injury, or death involving:	☐	☐	☐	☑
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	☐	☐	☐	☑
iii) Seismic-related ground failure, including liquefaction?	☐	☑	☐	☑
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☑	☐	☑
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑
7. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☑	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☑	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
8. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☑
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support the existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☑
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☑
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
f) Otherwise substantially degrade water quality?	☐	☐	☐	☑
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
9. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑
10. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑
11. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☑	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
12. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
13. PUBLIC SERVICES --				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☑
Fire protection?	☐	☐	☐	☑
Police protection?	☐	☐	☐	☑
Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑
14. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion or recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑
15. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☑
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☐	☑
f) Result in inadequate parking capacity?	☐	☐	☐	☑
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
16. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑
17.. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b) Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)?	☐	☐	☐	☑
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

II. DETERMINATION

On the basis of this initial evaluation:

__X__ I find that the proposed Basin Plan amendment could not have a significant effect on the environment.

_____ I find that the proposed Basin Plan amendment could have a significant adverse effect on the environment. However, there are feasible alternatives and/or feasible mitigation measures that would substantially lessen any significant adverse impact. These alternatives are discussed in the attached written report.

_____ I find that the proposed Basin Plan amendment may have a significant effect on the environment. There are no feasible alternatives and/or mitigation measures available which would substantially lessen any significant adverse impacts. See attached written report for a discussion of this determination.

PHIL A. GRUENBEG
Executive Officer

Date

ENVIRONMENTAL CHECKLIST DISCUSSION

The following discussions are grouped according to each of the major areas of the Environmental Checklist and cover the Potentially Significant Impact, Less Than Significant Impact With Mitigation, Less Than Significant Impact, No Impact categories, and Project Alternatives. A description of the project precedes the major areas of the Environmental Checklist.

As explained in the CEQA Checklist, the discussion that follows is also intended to fulfill the requirements of Title 23, section 3777, subdivision (a)(1) through (3); Public Resources Code section 21159, subdivision (a)(1) through (3); and Title 14, section 15187, subdivisions (b) and (c)(1) through (3). More explicitly, this document provides an analysis of the reasonably foreseeable environmental impacts resulting from the implementation of the project. Where appropriate, the evaluation also includes an analysis of reasonably foreseeable feasible mitigation measures relating to those impacts; and an analysis of reasonably foreseeable alternative means of compliance with the requirements of this project, which would avoid or eliminate the identified impacts.

PROJECT DESCRIPTION

The proposed project consists of an amendment to the Water Quality Control Plan for the Colorado River Basin Region (hereafter "Basin Plan") that will establish the New River Pathogen Total Maximum Daily Load (TMDL) and require implementation of actions to address the impairments that pathogens have on river water quality. Also, and as required by the California Water Code (CWC), the proposed amendment also incorporates an implementation plan for the TMDL that includes: (a) a description of the actions to be taken to achieve the TMDL, including recommend actions; (b) proposed time schedules for actions to be taken, and (c) proposed surveillance to be taken to assure compliance with the TMDL (CWC § 13242). The implementation plan for the TMDL is hereafter referred to as “TMDL Implementation Plan.”

The Basin Plan designates beneficial uses of waterbodies within the Region, establishes water quality objectives for the protection of these beneficial uses, and outlines a plan of implementation for maintaining and enhancing their water quality. The existing Basin Plan specifies bacterial numeric water quality objectives and beneficial uses for the New River. While the objectives are expressed in the form of bacteria indicator microorganisms, they have been established to address pathogenic microorganisms in general (e.g., bacteria, viruses, etc.). The river's bacterial objectives are being exceeded and its beneficial uses are being impaired because of discharges of raw sewage, improperly treated sewage, and other wastes from the Mexicali metropolitan area in Mexico. They are also being violated because of discharges of treated, but undisinfected wastewater from treatment plants in Imperial County.

Reasons for the Proposed Project

A TMDL is defined as the maximum amount of a pollutant that a body of water can receive and still meet water quality standards (33 U.S.C. §1313 et seq.). The Basin Plan establishes water quality standards for waterbodies within the region by designating beneficial uses for waterbodies within the Region and establishing water quality objectives for the protection of these beneficial uses. The Basin Plan also outlines a plan of implementation for maintaining and enhancing water quality. The existing Basin Plan includes numeric water quality objectives for pathogen-indicator bacteria to protect beneficial

uses for the New River. The proposed TMDL sets those objectives as numeric targets and allowable waste load and load allocations for the TMDL.

Pursuant to Section 303(d) of the Clean Water Act[1], in 1998 the Regional Board adopted a list of impaired waters. The list (303(d) List) was approved by the State Water Resources Control Board (State Board) the same year and identifies the New River as water quality limited, in part, because pathogen-indicator bacterial concentrations violate the water quality standards (WQS) established by the Regional Board to protect the beneficial uses of the river. The main sources of the impairment are discharges of wastes from Mexico and discharges of treated, but undisinfected wastewater from several wastewater treatment plants in Imperial County. Section 303 (d)(1)(A) of the Clean Water Act (CWA) (33 USC 1313(d)(1)(A)) requires the California Regional Board to establish TMDLs for those pollutants causing the impairments to ensure that impaired waters attain their beneficial uses. Therefore Regional Board staff has developed, for consideration of adoption by the Regional Board, the Draft Pathogen, the TMDL Implementation Plan, and a proposed Amendment to the Basin Plan to incorporate the key components of the TMDL.

A TMDL addresses pollution from point and nonpoint sources of pollution. Nonpoint sources of pollution are usually defined as sources which are diffuse and/or not subject to regulation under the federal National Pollutant Discharge Elimination System (for surface water discharges). Examples of nonpoint sources of pollution include agricultural runoff. Point sources are, in general, discrete conveyances such as pipes or man-made ditches that carry pollutants (e.g., wastes). Examples of point sources of pollution include wastewater treatment plants and confined animal facilities. The proposed TMDL sets the following wasteload allocations (WLAs) and load allocations (LAs) for point sources and nonpoint sources of pollution, respectively:

	WLAs and LAs	
Indicator Parameters	**30-Day Geometric Mean[a]**	**Maximum**
Fecal Coliforms	200 MPN[b]/100 ml	c
E. coli	126 MPN/100 ml	400 MPN/100 ml
Enterococci	33 MPN/100 ml	100 MPN/100 ml

a. Based on a minimum of no less than 5 samples equally spaced over a 30-day period.

b. Most probable number.

c. No more than 10% of total samples during any 30-day period shall exceed 400 MPN/100 ml.

The allocations are applicable throughout the entire stretch of the New River in the U.S. and are based on extensive epidemiological studies conducted, amongst others, by the United States Environmental Protection Agency.

[1] The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The amended Federal Water Pollution Control Act is commonly referred to as the "Clean Water Act" and is contained in Title 33, U.S. Code, Section 1251 et seq. The CWA Section #s referenced in this document refer to the Section #s of the 1977 amendment.

Also, the proposed TMDL Implementation Plan requires that:

- The City of Westmorland, Seeley County Water District (CWD), McCabe Elementary School, and Date Gardens Mobile Home Park (DGMHP), which are discharging treated, but undisinfected domestic wastewater into the river and/or its tributaries provide effluent disinfection at their wastewater treatment plants (WWTPs) (i.e., construct, operate, and maintain disinfection facilities for the WWTPs). The WWTPs are in Imperial County; and

- The U.S. Government take appropriate measures for the New River at the International Boundary in accordance with a time schedule to address the impairments.

A monitoring program is also proposed as part of the TMDL to track water quality changes and compliance with the TMDL.

The California Water Code prohibits the Regional Board from specifying the manner as to which a discharger should use to comply with Regional Board requirements (CWC § 13360). Therefore, it is unknown what type of disinfection alternatives the dischargers may implement, but domestic wastewater typically is disinfected using chlorine (both in liquid and gas forms), ultraviolet radiation, or ozone. Of these three disinfection methods, chlorine is the most widely used in the U.S. The cities of Brawley prepared and certified a Mitigated Negative Declaration on May 20, 1999 to address potential environmental impacts associated with the upgrades/expansions WWTP. Similarly, the City of Westmorland prepared and certified a Negative Declaration on March 9, 1998, to address potential environmental impacts associated with the upgrades/expansions of its WWTP. The proposed upgrades/expansions include disinfection facilities and were required by Regional Board enforcement actions that preceded this proposed project. Therefore, this analysis focuses on the potential impacts that the disinfection facilities for the McCabe Elementary School, Date Gardens MHP, and Seeley CWD WWTPs may have on the environment; and the impacts that prescribing disinfection limits for the City of Westmorland WWTP have on the environment because the City's NPDES permit currently does not include effluent disinfection limits.

The U.S. Section of the International Boundary and Water Commission (IBWC) is charged by the Mexican-American Water Treaty of 1944 with the solution of sanitation problems in the U.S.-Mexico border area. Also, the La Paz Agreement of 1983 between Mexico and the U.S. designated the United States Environmental Protection Agency (USEPA) as the U.S. coordinator for environmental issues along the border. Therefore, the Regional Board views the U.S. government as a responsible party for the pollution of the New River at the International Boundary. It is unknown how the U.S. government proposes to address the bacterial pollution at the border. It has consistently rejected the idea of building facilities in the U.S. to address the river pollution. Therefore, it is unlikely that it will undertake a project in Imperial County to address the problem. It has, and therefore is likely that will continue, to work with and with the consent of Mexico and build facilities in Mexico to address the problem. Under this scenario, a CEQA analysis of the control measures is not required.

Project Setting

The New River is a tributary to the Salton Sea, California's largest inland surface water. The Salton Sea is the most prominent feature of the Salton Sea Transboundary Watershed. The New River has its headwaters several miles south of the International Boundary between the United States and Mexico, and travels approximately 60 river miles through Imperial County before it empties into the

southwesterly corner of the Salton Sea, just downstream of the City of Westmorland. This part of the watershed is characterized by its arid environment (less than 2.5 inches per year of average precipitation). Imperial County covers approximately 4,597 square miles (2,942,080 acres) (Imperial County, 1998). About 50% of County lands are undeveloped and under the jurisdiction and ownership of the federal government. Of the developed acreage, approximately 479,327 acres are irrigated lands for agricultural purposes, most of which is Imperial Valley. The developed areas (e.g., cities, communities, and support facilities) occupy less than 1% of the land within the county. The Salton Sea covers about 7% of the County's area. The U.S. communities directly affected by this proposed project are the City of Westmorland, Seeley County Water District, McCabe Elementary School, and Date Gardens Mobile Home Park:

- The City of Westmorland currently owns and operates a WWTP that has a designed capacity of 0.375 million gallons per day and consists of two aeration basins and four waste stabilization ponds. The WWTP is located on the northern perimeter of the City and discharges its effluent to the Trifolium Drain No. 6, which discharges its flows into the New River at a point 8 miles upstream from the Salton Sea.

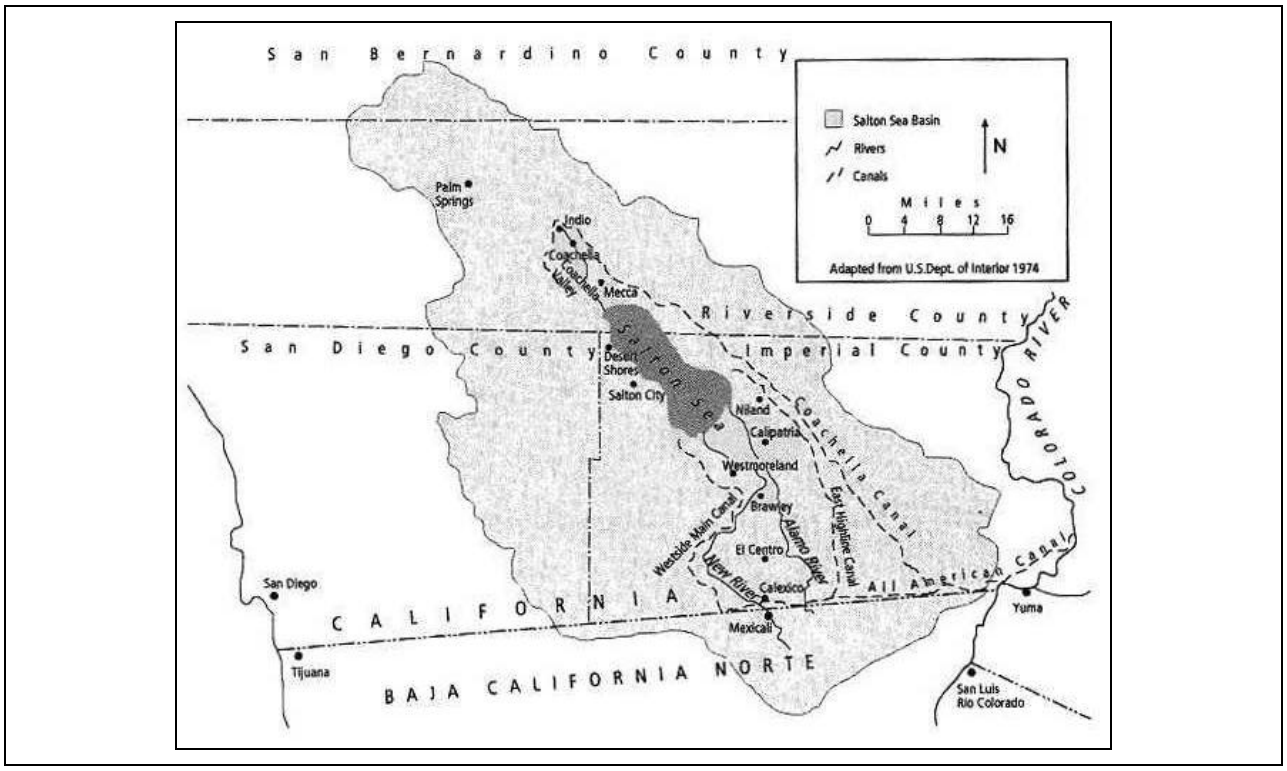
- The McCabe Elementary School WWTP is located just below Interstate 8, approximately 5 miles southwest of El Centro. The WWTP consists of an extended aeration sewage treatment package plant that discharges 1500 gallons per day. The WWTP has a design capacity of 5000 gallons per day. Treated wastewater from the WWTP is discharged to Wildcat Drain, which discharges into Rice Drain No. 3, which discharges its flows into the New River at a point 35 miles upstream from the Salton Sea.

- The Seeley WWTP is located on the outskirts of the community of Seeley, approximately 8 miles west of El Centro. The treatment system consists of an aeration basin and a stabilization pond and is designed for a flow of 0.2 million gallons per day. The wastewater is discharged to the New River that flows about another 30 miles to the Salton Sea.

- The Date Garden Mobile Home Park WWTP is located approximately 4 miles west of El Centro. The treatment facility consists of an activated sludge-type package treatment plant with a design capacity of 14,000 gallons per day. Treated sewage is discharged directly into a subsurface tile drain, through a concrete pipe into Rice Drain No. 3 that flows 7 miles before entering the New River about 30 miles from the Salton Sea.

The figure shown below illustrates the New River and the major incorporated and unincorporated communities within its watershed.

Figure 1: New River Vicinity Map



A discussion of each of the major areas of the Environmental Checklist follows.

I. Aesthetics

No Impact—The Basin Plan amendment itself is regulatory action, which will not result in any aesthetics impacts. The establishment of the TMDL will require, in part, implementation of structural controls (i.e., construction and operation of disinfection wastewater facilities) for the City of Westmorland, Seeley County Water District, McCabe Elementary School, and Date Gardens Mobile Home Park wastewater treatment plants to eliminate pathogens in the effluent from the plants at concentrations that threaten violation of the TMDL. The construction of disinfection facilities for the WWTPs will take place within the WWTPs. Therefore, construction, operation, and maintenance of these facilities are not expected to have an aesthetic impact

II. Agriculture Resources

No Impact—The proposed project would not result in any loss or conversion of agricultural land, conflict with existing agricultural zoning, or the Williamson Act. Therefore, no impacts to agricultural resources have been identified.

III. Air Quality

Less Than Significant—Particulate emissions and ozone in Imperial County exceed Federal and California State Ambient Air Quality Standards. Reportedly, particulate emissions for the most part are due to meteorological conditions, minimal rainfall and dry soil, but they are also created by extensive

disturbances of dry soil from agricultural and off-road vehicles. The presence of ozone and exceedances of the Federal and State ozone standards in Imperial Valley are the result of transfer of pollutants from the South Coast Air Basin, industrial activities in the City of Mexicali, Mexico, where pollutants blow upwind into the Imperial Valley, and from nocturnal air stagnation and around-based temperature inversions. Inversions lead to poor air quality at night that carries over into early morning. The Basin Plan amendment itself is regulatory action, which will not result in any air quality impacts or interfere with the implementation of any air quality regulatory action. The required disinfection facilities are not sources of emissions that could violate any air quality standard or contribute substantially to an existing or projected air quality violation; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or expose people to objectionable odors.

The installation/construction of the facilities may involve the limited use of heavy-duty construction equipment (e.g., caterpillars, cranes, dump trucks, backhoes, etc.) that are potential sources of gas emissions, but the Imperial County Air Pollution Control District (ICAPCD) reports that such equipment meets emission standards and are exempted from ICAPCD permitting requirements. Therefore, emissions from such equipment are not expected to result in air quality impacts. Short-term emissions of particulates (i.e., dust, clay, silt, and fine sand) may be generated by the equipment disturbing relatively small areas preparing the terrain to build the required disinfection facilities. Additional potential sources of particulates are on-site and off-site vehicle traffic in dusty unpaved areas related to the construction activities. The individual and cumulative contribution of these activities are anticipated to be less than significant, will not expose sensitive receptors to any substantial pollution concentrations, or create objectionable odors affecting a substantial number of people.

IV. Biological Resources

Less Than Significant With Mitigation—The New River is a part of the Salton Sea Watershed and is therefore an important functioning component of the Pacific Flyway, a major migratory route connecting Canada and the US to Mexico and Central America. The degradation of wetland habitat elsewhere along the Pacific Flyway has rendered the area vital habitat for migratory avian species. The New River riparian corridors and deltasare potential major wildlife movement corridors and constitute sensitive habitat. The dominant plant species found along these corridors is salt cedar, an introduced species that has suffocated the native vegetation. Other plant species include reeds, cattails and arrowheads. Data from the U.S. Fish and Wildlife Service (USFWS) indicate that the most common birds are the burrowing owl, a state- and federally-listed species of concern, the savannah sparrow, yellow-rumped warblers, and the red-winged blackbird. The New River watershed is also potential habitat for the state-fully-protected-threatened and federally listed endangered Yuma clapper rail and state-fully-protected-threatened California Black rail. Fish that inhabit the waterbodies in the New River watershed include mosquito fish, carp, yellow bullhead channel and flathead catfish, tilapia, longjaw mudsucker, largemouth bass, red shiner, sailfin molly, and others. The USFWS reports that the state- and federally-listed endangered pupfish is found in the agricultural drains and in the New River near the outlet to the Salton Sea.

The proposed amendment will require the implementation of actions to reduce pathogens in the New River. This should result in a healthier habitat for biological resources, including wildlife, vegetation, fish, and invertebrates that are supported by the New River and/or its tributaries. Discharge of

disinfected wastewater is not anticipated to have an impact on riparian habitat. However, wastewater disinfected with chlorine can leave chlorine residual that has the potential to be acutely toxic to aquatic life (e.g., fish and invertebrates). Where chlorination is proposed as the method of disinfection, the Regional Board will prescribe in the NPDES permits for the City of Westmorland, Seeley CWD, Date Gardens MHP, and McCabe Elementary School chlorine residual limits for their effluent to mitigate this potential significant impact to a level of less than significant. Typical dechlorination methods involve the use of sulfur dioxide.

V. Cultural Resources

No Impact—The proposed project will not result in any cultural resources impacts. Implementation/construction of pathogen control facilities (e.g., disinfection facilities) are expected to take place on existing wastewater treatment plants (WWTPs). The WWTP sites do not involve or implicate any known historical, archeological, or paleontological resources, unique sites or unique geologic features. Therefore, no impacts to cultural resources have been identified and no mitigation measures are required.

VI. Geology and Soils

Less Than Significant With Mitigation—Imperial Valley is one of the most active seismic zones in North America, with numerous historic earthquakes. The Valley experiences continuous low-to-moderate level seismic activity. The great San Andreas Fault lies roughly parallel to and less than 10 miles northeast of the Alamo River. A magnitude 8 earthquake might occur once per 160 years, a magnitude 7 every 13 years, a magnitude 4 every 10 years, and a magnitude 3 about ten to twenty times per year. The area had two magnitude 6 quakes in 1987. Additionally, some areas in the Valley have a perched groundwater table. The combination of loose, fine sediments, shallow groundwater, and seismicity create a potential for soil liquefaction. Therefore, the potential for structural failure is inherently significant for the area. The Basin Plan amendment itself will not result in any geological impacts.

Construction of disinfection facilities at existing WWTPs are not expected to result in any soil disturbances that would result in the rupture of any known fault, any significant seismic ground shaking, seismic-related ground failure, landslides, subsidence, liquefaction, lateral spreading or collapse. Construction of disinfection facilities at existing WWTPs will result in a less than significant impact to the topography as they may typically entail the disturbance of less than a couple of thousand square feet per WWTP. In the case of the package WWTPs at McCabe Elementary School and Date Gardens MHP, the area affected is even smaller, in the order of a few hundred square feet. However, the disinfection facilities are structural controls typically constructed at or above ground surface. Improperly sited and/or constructed facilities could have acute or chronic catastrophic failures (e.g., structural collapse, liquefaction, etc.), which could result in discharges of untreated or improperly treated wastewater or spills of chlorine, where chlorine is used as disinfectant. These could have a significant impact on the environment. To mitigate this potential impact to a less than significant impact, and pursuant to Section 13267 of the California Water Code, the Regional Board will require that dischargers who need to build these types of controls submit plans and specifications for the proposed controls and that the plans and specifications be prepared under the direct supervision of a California registered professional engineer, experienced in the design of these types of controls. Further, it will require that the controls comply with local and Imperial County building standards and generally

accepted engineering practices for the area. Hence, these impacts are less than significant with mitigation.

VII. Hazards and Hazardous Materials

Less Than Significant With Mitigation--Three WWTPs in the project area are required to construct effluent disinfection facilities for treatment of wastewater. It is at the discretion of the owners of the WWTPs as to which disinfection process will be utilized for compliance with TMDL. Commonly accepted disinfection methods include the use of chlorine gas, a chlorine solution, and ultra violet radiation. Chlorine gas is widely used throughout the United States and is usually coupled with dechlorination. Chlorine gas is highly toxic. It can cause temporary or permanent damage to the respiratory system and, at high dosages, death. The greatest risk for chlorine exposure occurs during the transport of chlorine from the producer/distributor to the user in chlorine tank cars. Safety in this arena is addressed through standard procedures implemented by the carrier of the hazardous material and the various safety measures incorporated in the design of chlorine tank cars that prevent rupture even after an accident. Therefore the potential impact to the environment during transportation is considered to be less than significant. Other potential hazards associated with chlorine gas treatment involve the leaks and use of sulfur dioxide as a dechlorinating agent. While sulfur dioxide is also a toxic substance, larger quantities are required to reach a toxic level, both of which could have a significant impact on the environment. Where chlorine is used as the principal disinfectant, the Regional Board will require in the NPDES permits for the plants, that plant personnel have the necessary Wastewater Treatment Plant Operator Certification from the State Water Resources Control Board to properly operate such disinfection system. It will also require that the WWTPs comply with County standards for the use and storage of such material. State regulations require that facilities that use chlorine gas as disinfectant are required to have emergency repair kits on-site to handle leaks and spills. The Regional Board will require facilities that propose to use chlorine for disinfection to submit a spill prevention and response plan to mitigate the potential impact from spills/leaks of chlorine to a less than significant impact. Plan requirements will include providing containment structures around chlorine solution containers to provide on-site containment of spilled materials and compliance with regulations for use of chlorine gas. These mitigation measures reduce the potential impact on the environment to a less than significant.

VIII. Hydrology and Water Quality

No Impact—The New River watershed drains approximately 200,000 acres from the Imperial Valley, the Mexicali Metropolitan area, and approximately 300,000 acres in the Mexicali Valley. The river carries urban runoff, untreated and partially treated municipal wastes, untreated and partially treated industrial wastes, and agricultural runoff from the Mexicali Valley northward across the International Boundary into the United States. Within the United States, the New River channel is approximately 60 miles in length and up to 2/3 of a mile in width. Within Mexicali, Baja California, Mexico, this natural channel way is discernible for about 12-16 miles. From 1980 to 1997, the flow of the river at the border averaged 182,000 acre-feet/year (Tetra Tech, 1999). Once it crosses the International Boundary, the New River flows approximately 60 miles through the Imperial Valley until it reaches its outlet, the Salton Sea. Through the Imperial Valley, the New River acquires about 2/3 of its total flow, mainly in the form of agricultural return flows via agricultural drains owned and operated by Imperial Irrigation District (IID). It also receives treated domestic and industrial wastewater from point sources of pollution. At its outlet with the Salton Sea, the New River flow is about 600 cfs or 434,380 acre-

feet/year. The Regional Board has prioritized the New River for clean up purposes because the river's water quality is significantly impaired by pathogens (as indicated by bacteria), pesticides, volatile organic compounds, silt, and nutrients.

The proposed project will ask the U.S. Government to implement actions to address discharges of wastes from Mexico that are causing violation of the bacteriological water quality standards established by the state (and approved by the USEPA) for the New River. Should the U.S. Government opt to build infrastructure in Imperial County (e.g., near or at the International Boundary with Mexico) to address the pollution, as stated in a previous paragraph, this project would require the preparation of a separate CEQA document to address any and all environmental impacts associated with the project, including potential canalization of the New River near or at the Boundary, changes in river flow and course, flooding hazards, changes in water quality, etc. On the other hand, should it opt to do a project in Mexico to address this issue, a CEQA document is not required.

Similarly, the project also requires the four WWTPs in the Imperial Valley to provide disinfection. The Regional Board has adopted waste discharge requirements (NPDES permits) for the discharges of wastes from the plants, but the permits do not currently include disinfection limits. Consequently, the WWTPs are currently discharging treated but undisinfected wastewaters, which are causing and/or contributing to violation of the bacteriological standards for the New River. The proposed TMDL will impose disinfection limits to correct the water quality impairment they are causing by providing effluent disinfection by June 15, 2004. The construction, operation, and maintenance of disinfection facilities and the discharge of disinfected WWTP effluent do not involve increasing discharges or any alteration to the New River flow regime and/or its tributary drains. Nor do they involve groundwater supplies and alteration of stormwater facilities. The most common method of disinfection is chlorination. If the WWTP owners/operators choose this method, there will also be a corresponding dechlorination element that will ensure the maintenance of water quality in the plant effluent. While the discharge of chlorinated and dechlorinated wastewater from the WWTP has to potential to result in a measurable increase of the sulfur and chlorine content of the New River and/or its tributaries, the increase is is not expected to result in water quality impacts.

IX. Land Use and Planning

No Impact—The study area is under the planning jurisdiction of the Imperial County General Plan and its Elements. The construction of disinfection facilities on existing WWTPs is a land use compatible with the current land use designation for WWTPs. Thus, the proposed project will not result in land use and planning impacts and, therefore, no impacts have been identified and no mitigation measures are necessary.

X. Mineral Resources

No Impact—The proposed project and implementation measures will not result in any mineral resources impacts. Implementation and construction of disinfection facilities is expected to take place at sites that have been in use for treatment of wastewater for at least the last 5 years. No known mineral resources can be affected by the proposed actions. The proposed project will not result in mineral resources impacts. Therefore, no impacts have been identified and no mitigation measures are necessary.

XI. Noise

Less Than Significant—All noise generated from the proposed project will be associated with the construction of disinfection facilities at the Seeley CWD, the McCabe School, and the Date Gardens MHP WWTPs. This activity will generate marginal traffic and construction noise on and around the roadways that service the sites. However, the noises are temporary and their levels are relatively insignificant because, with the exception of the date Gardens MHP WWTP and the MCCabe School WWTP, the sites are relatively isolated from sensible receptors. The Date Gardens MHP WWTP is a few hundred feet away from mobile homes, and the McCabe School WWTP is a few hundred feet from classrooms. Considering the size of the WWTPs, which discharge less than 10,000 gallons per day, construction of the disinfection facilities can be accomplished in a matter of few days, during normal business hours. This impact is unavoidable and locally moderate, but temporary. Construction of the facilities will be subjected to County permitting requirements and noise ordinances.

XII. Population and Housing

No Impact—The proposed project is not growth inducing, will not result in the displacement of any housing, or the displacement of any people. Consequently, it will not result in population and housing impacts. Therefore, no impacts have been identified and no mitigation measures are necessary.

XIII. Public Services

No Impact—The proposed project will not affect public services in anyway including the maintenance of acceptable service ratios, response times, or other performance objectives. Therefore, no impacts have been identified and no mitigation measures are necessary.

XIV. Recreation

No Impact—The proposed project may increase the use of the New River for recreational activities such as fishing, but the increase in activity is not expected to contribute the deterioration of the River. This statement is especially convincing when considering the deteriorated state of the river at the present time, and the anticipated improvements resulting from the implementation of this project. Therefore, no impacts have been identified and no mitigation measures are necessary.

XV. Transportation/Traffic

No Impact—The WWTPs that will be building and operating disinfection facilities are located in the Imperial Valley. The roads in Imperial Valley are thoroughly accommodating to the low amount of traffic circulating through the valley. The plants are located in relatively rural areas, hence potential project-related transportation/traffic impacts are anticipated to be insignificant, not cumulatively considerable, and will not result in any significant road closures or any other traffic related disturbances. Therefore, no impacts have been identified and no mitigation measures are necessary.

XVI. Utilities and Service Systems

No Impact—The proposed project will require the upgrade of WWTPs in the Imperial Valley. The environmental effects related to the construction of these facilities are limited to the physical disruption of the construction site. During construction of the facilities, the Regional Board will require that the WWTPs continue to operate in compliance with their Board permits, with no disruption to the level of service they provide. Considerations concerning landfill capacities are not applicable to this project. Therefore, no impacts have been identified and no mitigation measures are necessary.

XVII. Mandatory Findings of Significance.

The project will not result in any of the impacts listed under mandatory findings of significance.

XVIII. Alternatives to Proposed Project

The following paragraphs provide a discussion regarding alternatives to the proposed project (i.e., proposed Basin Plan amendment and TMDL), including discussions on the rationale for the proposed alternative, the "No Action Alternative," and variations to the proposed alternative.

Proposed Alternative

The proposed New River Pathogen TMDL is a reasonable and feasible approach to decrease existing enteric bacteria densities to a level that are associated with acceptable health risks for water contact recreation. The TMDL contains bacteria numeric targets, based on federal Bacteria Water Quality Criteria, that presently are expected to attain and maintain designated beneficial uses, and eliminate existing water quality impairments and public health threats. The proposed time schedule outlined in the TMDL implementation plan requires compliance within a three-year period. Such a time schedule is moderately aggressive, yet reasonable and was established taking into account the ability of responsible parties to implement tasks and pollution severity. The time schedule provides the responsible parties with the necessary time to explore financial options and undertake supplemental CEQA studies, as the situation warrant.

No Action Alternative

The "No Action" alternative implementation would involve no action by the Regional Board to adopt this TMDL, including implementation measures and monitoring program. This alternative does not comply with the CWA or meet the purpose of the proposed action, which is to eliminate ongoing violations of the Basin Plan water quality standards, water quality impairments, and public health threats.

Other Alternatives

Alternatives to the proposed Basin Plan amendments and TMDL essentially fall into three categories: (1) alternate deadlines for achieving the TMDL, (2) alternative numeric targets, and (3) a combination of alternative deadlines and numeric targets. Regarding alternate deadlines for compliance, a more stringent schedule (e.g., requiring compliance immediately after adoption of the TMDL or within a year thereafter) is not realistic as the schedule would not afford the owners and operators of the affected WWTPs and the U.S. Government the opportunity to undertake the necessary planning and studies to

evaluate which is the most effective way to ensure compliance with the TMDL. A more relaxed deadline (e.g., 5 years) is not acceptable because it fails to resolve the water quality impact at the earliest practicable date, which is at the heart of the TMDL process.

Implementation of alternative numeric targets could consist of targets that are less stringent or more stringent than the proposed ones. These options were considered and judged to be unacceptable for this phased TMDL. In the absence of an extensive and long-term scientific investigation (e.g., risk analysis) to establish less stringent bacteria water quality objectives, less stringent objectives would only increase the threat to public health and exceed federal criteria. Such an investigation would also only prolong the impaired state of the New River and possibly the Salton Sea itself. Similarly, considering the degree of bacterial pollution, more stringent objectives at this time would only place an unnecessary economic hardship to the responsible agencies/parties because they would have to implement additional wastewater treatment to comply with more stringent standards.

State Water Resources Control Board

Winston H. Hickox
Secretary for Environmental Protection

Office of Statewide Consistency
Economics Unit
901 P Street • Sacramento, California 95814 • (916) 653-3972
Mailing Address: P.O. Box 100 Sacramento, California • 95812-0100
FAX (916) 657-2394 • flimacher@exec.swrcb.ca.gov

Gray Davis
Governor

TO: (1) Barbara Evoy
Chief, Office of Statewide Consistency

(2) Jose Angel
TMDL Development
Colorado River Basin Regional Water Quality Control Board

FROM: Frank Limacher
Economics Unit
Office of Statewide Consistency

DATE: October 12, 2000

SUBJECT: REVIEW OF NEW RIVER WASTE WATER TREATMENT COSTS

The Economics Unit was requested to review cost estimates for five waste water treatment and disinfection facilities discharging directly or indirectly into the New River, in the Imperial Valley. The sites vary greatly in the amounts of average daily and peak daily discharge, and include McCabe School, Date Gardens, Seeley, Westmoreland, and Brawley.

Two sets of cost estimates were submitted for review. Trojan Technologies, Inc. provided an estimate of the cost of the equipment necessary for chlorination and dechlorination. These costs include the cost of purchase and installation of equipment, but do not include the costs of new storage ponds and other facilities. Rick Eisman of Coombs Hopkins, Inc. provided an estimate of the total cost of constructing and operating the plants. These figures were intended to represent an upper limit on the cost of constructing and operating the plants.

The costs estimates were examined by John Herren, an engineer with the Division of Water Quality. His conclusion was that the cost estimates of the larger dischargers was relatively accurate but that the smaller discharger costs seemed somewhat too high. This observation verified the statements made by the engineer from Coombs Hopkins, who had prepared the estimates to represent dischargers in an urban setting.

A significant share of the cost of constructing the necessary waste water treatment facilities is the removal and disposal of excess soil resulting from the construction of ponds. In a rural setting, such as at McCabe School or Date Gardens, the costs are likely to be substantially lower than those used in the Coombs Hopkins estimates, so total costs are likely to be lower than the costs in the table below. However, lacking site-specific information, a more exact lower cost amount could not be determined.

The following chart summarizes the discharge information, and capital and annual costs, for the five facilities:

- Average Daily Flow and Peak Daily Flow, both expressed in gallons per day
- Total Capital Costs, including the complete costs of excavation and excess soil disposal, and construction, equipment and installation
- Amortized Capital Costs, calculated for 20 years, at 6% annual rate
- Annual Operating and Maintenance (O&M) Costs, in current year value
- Total Annual Cost, the added Amortized Capital and Annual O&M costs. This approximates the annual outlay sufficient to pay for the entire project for the twenty year period. This is expressed in current value.

Waste Water Treatment Facilities: Daily Amounts and Annual Costs					
	McCabe School	Date Gardens	Seeley	West-moreland	Brawley
Avg. Daily Flow (gal/day)	1,500	11,000	15,000	225,000	4.2 million
Pk. Daily Flow (gal/day)	4,500	22,000	30,000	500,000	8.4 million
Total Capital Cost	$100,000	$100,000	$250,000	$500,000	$1,000,000
Amortized Capital Cost	$8,700	$8,700	$21,800	$43,600	$87,000
Annual O&M Cost	$12,000	$15,000	$20,000	$24,000	$90,000
Total Annual Cost	$20,700	$23,700	$41,800	$67,600	$177,000